

Mr. Jaydeepkumar Tailor has twelve years of solid background in the engineering, procurement and construction of HV/EHV substations, transmission lines, renewable energy projects and thermal power projects. His expertise has been primarily in carrying out electrical design studies and calculations typically involved in Transmission & Distribution and Wind Farm projects. He possesses thorough knowledge of time domain modeling of power system components for EMTP studies, grounding systems, underground power cables and substation bus arrangements. He also possesses in-depth knowledge of performing Power System studies such as Relay Coordination, Arc Flash Studies, Load Flow, Short Circuit studies using ETAP, Lightning shielding, cable voltage drop and electromagnetic transient analysis. In his previous position as Executive Design Engineer at Larsen and Toubro Ltd., India, Mr. Tailor worked on basic and detailed engineering of electrical systems, which included developing single line diagrams, conceptual electrical equipment layouts, sizing calculations and preparation of tender specifications/datasheets of major electrical equipment like generators, transformers, DC system, UPS system, cables. Mr. Tailor currently holds the position of Senior Electrical Engineer in SNC-Lavalin's Hydro & Power Delivery Grid Solutions group. Mr. Tailor's progress in his professional as well as academic career in India and Canada is a result of his strong intellect and good organizational and communication skills. He is fluent in English, Hindi and Gujarati.

## SECTORS OF EXPERTISE

### Power

- › Power Transmission and Distribution; Power System Planning; Gas Turbine Power Plants; Combined-cycle Power Plants; Cogeneration Plants

## EDUCATION

<b>2008</b>	M.A.Sc. Electrical Engineering, University of Calgary, Calgary, Alberta, Canada
<b>2004</b>	B.Eng. Electrical Engineering, M.S., University of Baroda, Vadodara, Gujarat, India
<b>2000</b>	Diploma in Electrical Engineering, M.S., University of Baroda, Vadodara, Gujarat, India

## EXPERIENCE

### SINCE 2008

#### **SNC-LAVALIN ATP INC., CALGARY, ALBERTA, CANADA**

*Power Transmission & Distribution - Toronto*

#### **Lead Engineer, Design Studies and Field Services**

Instrumental in developing following capabilities in Grid Solutions team offerings:

- i) Substation Rigid and Strain Bus Studies
- ii) Relay Coordination & Arc Flash Studies
- iii) Pipeline AC Interference Studies
- iv) Grounding, Audible Noise & Radio Interference Voltage measurement capabilities

Train and manage a group of 3 engineers on various engineering studies and field services.

*Design Studies Lead, Hydro One Master Services Agreement, Hydro One, Canada, CA \$40 000 000 (01/2016 - present)*

### Years of Experience

- › 15 years

### Years with SNC-Lavalin

- › 12 years

### Key Positions

- › Design Engineer
- › Engineer - Electrical
- › Engineering Specialist - Electrical

### Languages

- › English
- › Gujarati
- › Hindi

SNC-Lavalin has been requested to provide Engineering Services for various projects on a 5 year Master Services Agreement, including transmission lines, substations, inspections, and standardization.

Supervised & performed QA of following electrical design studies for Bronte and Hydro One CMS Station F:

1. Cable Ampacity
2. Substation Grounding
3. Substation Lightning
4. Substation Arc Flash Study including protective device coordination and SC studies

Performed Soil Resistivity Tests

*Senior Electrical Engineer, Keewatinohk 230kV AC Switchyard, Manitoba Hydro, Manitoba, Canada (06/2014 - present)*

EPCM of 230kV AC Switchyard

QA, Coordination and Technical Supervision for following studies and Field Services:

1. Insulation Coordination
2. Lightning Shielding
3. Bus Design
4. Audible Noise and Radio Interference Voltage (RIV) measurements
5. Audible Noise Modeling
6. Arc Flash Study for 230kV, 12.47kV and 600V voltage levels including protective device coordination and SC studies

Witnessing High Voltage Equipment tests on CT, CVT and Surge Arresters

*Electrical Engineering Studies, Altalink, BC Hydro, IUSA, Manitoba Hydro, Hydro One, National Grid, NS Power, NL Hydro, Canada (01/2008 - present)*

Perform, Supervise and ensure QA of engineering studies and Field Services for wide range of engineering projects for various clients in US and Canada:

Perform, Supervise and ensure QA of following studies and Field Services:

- Grounding Studies
- Arc Flash Studies
- Lightning Shielding
- TRV and EMTP Studies
- Insulation Coordination Studies
- Rigid and Strain Bus Studies
- Cable Ampacity Studies
- Audible Noise Studies
- Short Circuit Studies
- Grounding, Power Quality, Audible Noise and RIV measurements

Coordination with Client and other engineering disciplines

Attend Design Review Meetings with Clients

Attending Constructability review meetings

Technical Bid Evaluation

#### Site Experience

- > Canada
- > India

#### Computer Applications

- > PSSE
- > ETAP
- > ASPEN oneliner
- > CDEGS
- > PSCAD
- > WinIGS
- > MATLAB
- > Microstation
- > C/C++
- > MS Windows
- > MS Office
- > CYMCAP
- > CadnaA
- > SAMCEF Field

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Preparing Technical Proposals and Level of Efforts

*Senior Electrical Engineer, Meikle Wind Terminal Substation, BC Hydro, Canada (04/2015 - 12/2016)*

EPCM of a 230kV substation and 230kV Transmission Line retrofitting to enable Meikle Wind Farm integration in to BC Power Grid.

Carried out AC Interference Study for Gas Pipelines from 230kV Overhead transmission line.  
Detailed CDEGS Right-of-Way modeling and analysis.

Quality Assurance, Inter-disciplinary Coordination, design review meetings with client and technical supervision of Engineering Studies like Grounding, Lightning Shielding, Bus Design.

*Design Studies Lead, London Street Generating Station Substation, Engineering Procurement and Construction, Peterborough Utilities Inc., Canada (02/2015 - 08/2016)*

Engineering Procurement and Construction of 5/44kV substation

Supervised & performed QA of Grounding and Lightning protection studies

Performed and trained peers on performing Soil Resistivity and Fall of Potential Tests

*Lead Engineer Electrical Studies, NSMPL - ABB, Engineering, ABB Canada, Canada (11/2014 - 12/2016)*

Detailed Engineering of three AC 230kV Substations.

Successfully met challenging deadlines and tight budget.  
Produced grounding solutions to client in challenging soil conditions  
Arc Flash Studies for 600V auxiliary AC distribution of two 345/230kV substations  
Protective device coordination of LV Circuit breakers with fuse  
Short Circuit and device duty evaluation  
Carried out Soil Resistivity Tests

*Senior Electrical Engineer, System Impact Assessment and Customer Impact Assessment application form for North Kent Wind Farm, Samsung Renewables and Pattern Energy, Ontario, Canada (08/2015 - 12/2015)*

Performed preliminary engineering sizing calculations for substation major equipment.  
Performed Collector circuit impedance calculations  
Filled and submitted IESO and Hydro One SIA/CIA Application Forms  
Supported client in technical clarification from IESO/Hydro One

*Senior Electrical Engineer, Armow Wind Farm Independent Engineer Review, Samsung Renewables & Pattern Energy, Canada, Canada (09/2015 - 10/2015)*

Performed inspection of Wind Farm facility including Wind Turbine towers, Control Building, Substation and Collector system for substantial completion per IESO requirements and good engineering practices.

Signed off IESO Independent Engineer (IE) Review Form.

Prepared a site inspection report detailing the inspection findings as a supplementary information to the IE form

*Lead Engineer, Iberdrola USA TRV Studies, Iberdrola USA, United States (10/2014 - 05/2015)*

TRV studies for Medium Voltage Capacitor bank breakers at two substation refurbishment projects.

*Dawson Creek Area Transmission, BCH, British Columbia, Canada (01/2012 - 01/2015)*

Project includes construction of a 73 km, 230kV double circuit transmission line, large scale expansion of existing Bear Mountain substation as well as a new 230kV substation (Sundance Substation), to supply the high forecasted area load growth in the Groundbirch and Dawson Creek areas of the South Peace Region.

Grounding, Bus design and lightning shielding studies

*2013 Bulk Power System Planning Study, Transmission planning, City of Saskatoon, Vancouver, British Columbia, Canada, CA \$254 100 (12/2013 - 04/2014)*

The objective of the 2013 Bulk System Planning study is to complete an evaluation of the Saskatoon Light & Power's electric system to assist SL&P with decision making regarding orderly upgrades and improvements.

- › Perform technical adequacy analysis of planning alternatives to cater to City growth and improving supply reliability.
- › Load Flow and Short Circuit analysis for different planning alternatives. Transmission Line parameter calculations

*Webequie First Nation Community Grid Interconnection Pre-Feasibility Study, SNC-Lavalin Environment (Interdivisional Project), Ontario, Canada (2012)*

- › System impact assessment of interconnection alternatives to power First Nation communities
- › Cost Benefit analysis of the different interconnection alternatives

*Eabametoong First Nation Community Grid Interconnection Pre-Feasibility Study, SNC-Lavalin Environment (Interdivisional Project), Ontario, Canada (2012)*

- › System impact assessment of interconnection alternatives to power First Nation communities
- › Cost Benefit analysis of the different interconnection alternatives

*Yellowhead Mine System Impact Study, B.C. Hydro, British Columbia, Canada (2011)*

- › Carried out detail study of voltage dips occurring during Transformer energization inrush currents on PSCAD;
- › Carried out Largest Motor starting study in PSSE;
- › Carried out Short Circuit study using PSSE;
- › Developed base cases to carry out Load Flow studies using PSSE.

2004 - 2006

**LARSEN & TOUBRO LTD., BARODA, GUJARAT, INDIA**

**Executive Design Engineer**

*In-Plant Power Distribution Project, Delhi Vidyut Board, India, 4.16kV & 0.416kV (2006)*

Cable sizing and developing cable tray routing plan for in-plant power distribution.  
General arrangement drawings for main control building and MCC rooms.

*National Integrated Power Project, Toshiba (Japan), Sapele, Calabar, Ihovbar, Niger Delta, Nigeria, 1467 MW (2006)*

Detailed engineering mandate.

- › Prepared purchase specifications of Black Start Diesel Generator;
- › Performed sizing calculations of Black Start Diesel Generator;

- › Performed sizing calculations of Station 125V DC system.

*BA Energy Heartland Upgrader Project, Jacobs (Canada), Calgary, Alberta, Canada (2005)*

Technical support:

- › Prepared feeder list of Asphaltene and Limestone Handling System Substations;
- › Prepared technical specification of drive motors and belt conveyor protective switches.

*Utran Combined Cycle Power Plant Project, Rajasthan Electricity Board, India, 350 MW (2005)*

Proposal Engineering:

- › Prepared preliminary key Single Line Diagram;
- › Performed sizing calculation of HV/LV switchgear and Motor Control Center (MCC);
- › Carried out sizing calculation of generator step-up transformer, unit auxiliary transformer, insulated phase bus duct and generator circuit breaker
- › Prepared preliminary General Arrangement Drawing of electrical equipment and cable raceway corridor;
- › Generated LV cable Bill of Quantity.

*Xiamen Combined Cycle Power Plant Project, Pec-tech Ltd. (Singapore), Xiamen, Xiangnan, Fujian, China, 800 MW (2005)*

Detailed engineering mandate.

- › Prepared purchase specifications of generator;
- › Carried out technical bid evaluation of generator.

*Paguthan Combined Cycle Power Plant Project, Gujarat Electricity Board, India, 1000 MW (2004)*

- › Prepared preliminary key Single Line Diagram
- › Prepared transformer Bill of Quantity
- › AC Auxiliary Transformer sizing

## PROFESSIONAL ASSOCIATIONS

<b>SINCE 2008</b>	Engineers & Geoscientists British Columbia
<b>SINCE 2008</b>	Professional Engineers Ontario (PEO)

## PROFESSIONAL DEVELOPMENT

<b>2015</b>	SAMCEF Power Lines and Substations, MAYA HTT/Siemens, Quebec, Canada
<b>2014</b>	CDEGS Level I Certification, Safe Engineering Services & Technologies Ltd., Montreal, Quebec, Canada
<b>2014</b>	CDEGS Level II Certification, Safe Engineering Services & Technologies Ltd., Montreal, Quebec, Canada
<b>2011</b>	Rigid bus design using WinIGS, Advanced Grounding Concepts, Calgary, Alberta, Canada
<b>2010</b>	Writing Technical Reports, IWCC, Calgary, Alberta, Canada
<b>2010</b>	Industrial Lightning Protection, Electricity Forum, Calgary, Alberta, Canada
<b>2010</b>	Provided training on Grounding System Design using CDEGS, SNC-Lavalin T&D, Calgary, Alberta, Canada

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<b>2009</b>	Application of PSCAD in Power System Electromagnetic Transient Studies, Manitoba HVDC Research Centre, SNC-Lavalin T&D, Calgary, Alberta, Canada
<b>2008</b>	Power System Grounding, Safe Engineering Services & Technologies Ltd., Calgary, Alberta, Canada
<b>2005</b>	Presentation Skills Workshop, Larsen and Toubro Ltd., Baroda, Gujarat, India

### PUBLICATIONS AND PRESENTATIONS

Impact of High Short Circuit Current on Air Insulated Station Strain Bus Design, Montreal, Quebec, Canada, 2016

Grounding and Public Safety' & 'CDEGS as application tool for grounding design, Calgary, Alberta, Canada, 2009

Restoration of Fuse-Recloser coordination in distribution system with high DG penetration, Pittsburgh, Pennsylvania, United States, 2008

### ACADEMIC POSTS

<b>2006 - 2008</b>	Research Assistant; involved in protection coordination studies of distribution systems highly penetrated with Distributed Generators, University of Calgary, Calgary, Alberta, Canada
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